

# Energy Performance

## 1595 Wynkoop Street

### Building Design

- 1595 Wynkoop is the first federally leased building to be designed and built specifically to meet ENERGY STAR® standards
- Large atrium provides light source for entire structure
- Double L- shaped design address solar orientation and local wind patterns to optimize energy efficiency; essentially two buildings that employ distinct HVAC and climate control strategies
- Structural materials and concrete provide thermal mass that stores and releases heat slowly

### Exterior Features

- Horizontal sun shelves on south-facing sides reflect daylight through windows
- Vertical fins on NE & NW exterior of building block high season sunrays
- High-performance glass insulates and filters sunlight to reduce heat gain
- Computer-controlled blinds on SE & SW sides adjust to control glare and mitigate heat gain

### Interior Features

- Under-floor air distribution system supplies air efficiently, reduces mixing required to condition workspaces
- High-performance, low energy-use chillers cool interior of building
- Air-side economizer captures outside air to cool interior of building, reduce need to condition existing inside air
- District steam supplied by utility plant used to heat workspaces, eliminates need for boiler
- Daylighting controls monitor light levels in office space and adjust artificial light needs accordingly
- Green, vegetated roof provides insulation
- Lighting (T5 direct/indirect pendants, compact fluorescent downlights) meets stringent efficiency standards
- Sails in atrium reflect light downward and enhance daylighting throughout interior
- Light shelves fixed atop interior windows distribute daylight throughout office space
- Energy Star-rated equipment—lights, computer monitors, multi-function copy, print, fax machines
- Use of daytime cleaning crews will result in energy and operational savings

### Energy Sources

- Wind-energy purchases will offset 100% of building's electric power needs
- Centralized district steam is used to heat the building
- 48 photovoltaic panels will supplement building power at 10kW in max. sun— enough to power three to five homes

### Expected Outcomes

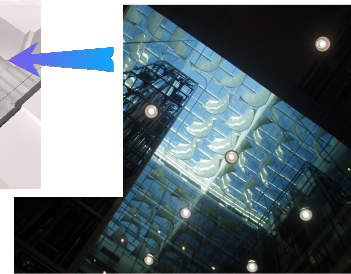
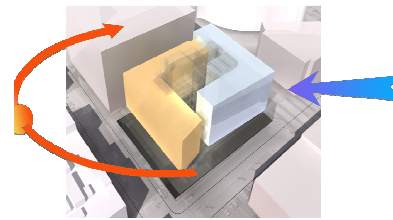
- 40% reduction in energy use, compared to minimum requirements for a similar building
- Cost savings of approximately \$144,000 annually compared to minimum standards
- Strategies achieve significant daylight in 75% of workspaces

### What You Can Do At Home

Many of the same energy efficiency principles used in commercial buildings can be applied at home, resulting in less pollution and significant energy and cost savings. Investing in efficient heating and cooling systems, lights, appliances and windows are a great way to start. EPA's Energy Star programs offer an easy way to find out about the energy performance of everything from windows to dishwashers to light bulbs. If you are interested in renewable energy, wind energy purchase programs are provided by utilities in many areas. For hot water, explore energy-efficient tankless, on-demand water heaters at your local home improvement store. In places that receive good sun, installing solar panels may be a good long-term investment.

### For More Information

[www.energystar.gov](http://www.energystar.gov); [www.epa.gov/greeningepa/greenpower.htm](http://www.epa.gov/greeningepa/greenpower.htm);  
[www.energysavers.gov/](http://www.energysavers.gov/); [www.wbdg.org/](http://www.wbdg.org/)



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